Physiological Psychology, by W. McDOUGALL. (Temple Psychological Primers.) J. M. Dent & Co., London, 1905. pp. 172.

Beiträge zur Psychologie der Aussage, von L. WILLIAM STERN. Zweite Folge. Zweites Heft. Johann Ambrosius Barth, Leipzig, 1905. pp. 154.

The Response of Inorganic Matter to Stimulus, being the Friday Evening Discourse at the Royal Institution, May 10, 1901, by JAGADIS CHUNDER BOSE. Wm. Clowes & Sons, Ltd., London, 1901. pp. 24.

NOTES AND NEWS.

THE ANNUAL MEETING OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION.

The fourteenth annual meeting of the American Psychological Association was held Dec. 27, 28, and 29th at Emerson Hall, the new Harvard building devoted to philosophy and psychology. The opening session was at nine o'clock, Wednesday morning, the president of the association, Miss Mary Whiton Calkins, Professor of Philosophy and Psychology at Wellesley College, presiding. The first paper was by G. V. N. Dearborn, of Tufts Medical School, on the Relations of Muscular Activity to the Mental Process, followed by a paper by Irving King, entitled "How can the Relation of the Conscious to the Subconscious be best Conceived?" Mr. King's point of view being that consciousness is best conceived as a point rather than a field capable of being graded off into the subconscious. These first two papers were included in one discussion. The next group of four papers was devoted to Comparative Psychology. The first, by Dr. Yerkes, of Harvard, on the Senses and Intelligence of the Japanese Dancing Mouse, was rendered especially interesting by the exhibition of the mice themselves, who showed the peculiar movements characterized as dancing. This study is still in progress but so far as can be stated from present results, the animals seem to be degenerate and below the standard of common mice in sense and muscular development. Mr. Porter, of Clark University, then gave a five minute report on the Psychology of the English Sparrow, followed by a longer paper on the Habits and Instincts of Spiders, genera Epeira and Argiope. Mr. Porter's extensive observations show for these two species a variability in instinct and a distinct adaptation to environment in the web spinning. Mr. Davis's paper discussed a different species of spider, which does not spin webs but forms its nests by the binding of grass blades. The character of these nests is such that in their variability Dr. Davis thinks we may have a possible objective measurement of the variability of instinct. Prof. Wheeler's paper on the Ant Queen as a Psychological Study brought out some exceedingly interesting points in the life history of the ant queen, which was shown, in many respects, to be quite the opposite of that of the queen bee, since the ant queen unites in herself all the characteristics and energies of the worker as well as the reproductive functions. The next paper, by Dr. Edward Cowles, was a Study

of the Physiology of Conscious Experiences, and was a plea for function rather than structure as a correlate of pathological mental conditions. This was followed by a paper by Dr. Boris Sidis on the Nature of Hypnotic and Post-Hypnotic Hallucinations. Dr. Sidis is convinced, from his experiments in hypnosis, that there are no true hallucinations in either hypnotic or post-hypnotic states but illusions which the subject really knows to be such.

The morning session closed with a paper on the Psychology of Sudden Conversions, by Dr. Morton Prince, who has made a detailed study of a single case, in which he was able to recover by hypnosis the mental experiences of a trance state, of which the subject retained no memory in a waking state. The emotional experiences of conversion following this state, Dr. Prince ascribed to a strong revival of previously experienced religious emotions during the trance, which was carried over into the conscious state without memory of their cause.

At the conclusion of Dr. Prince's paper the association adjourned to the Harvard Union as guests at a luncheon given by the Harvard Corporation.

At 2.30 P. M. there was a joint meeting of the American Psychological Association and the American Philosophical Association and the first part of the session was devoted to the exercises of the formal opening of Emerson Hall. The opening address was made by Pres. Eliot and this was followed by the principal address on Ralph Waldo Emerson, by Dr. Edward Emerson. The dedication exercises were followed by a joint discussion before the two associations on the Affiliation of Psychology and Philosophy and with the Natural Sciences. The discussion was opened by Prof. Münsterberg, who expressed himself strongly in favor of the close affiliation of psychology and philosophy and a withdrawal from the natural sciences. He was followed by Pres. G. Stanley Hall, of Clark University, who took the opposite view and would withdraw psychology from philosophy and affiliate it with the natural sciences, since, from his point of view, psychology, provisionally defined, is "a description as accurate as may be of all those facts of psychic life, conscious and unconscious, animal and human, normal and morbid, embryonic and mature which are demonstrable and certain to be accepted by every intelligent unbiased mind which fully knows them. They must also be so ordered like to like, and organized, that they can all be known with the least trouble. The best plan of organization when possible is evolutionary. Under this definition, psychology is excluded from no field of experience, conscious or unconscious, religious, social, genetic or individual that can be studied on the basis of solid empirical data and hence its closest allies as an inductive science in the future must be biology, physiology and anthropology. The nature of soul no more concerns it than does the ultimate nature of matter and motion concern physics. Such discussions belong to philosophy, the history of which Dr. Hall would insist upon as a part of the training of every experimentalist but would avoid too prolonged a lingering in philosophical fields, lest it unfit for dealing with facts. Psychology, he thinks, is yet in its dawn and its striving should be toward the goal of becoming a true natural history of the soul. The discussion was continued by Profs. Thilly, Angell, Taylor and Witmer, the points of view lying between those of the first two speakers.

At 7.45 in the evening the association met to listen to the address of the President, on A Reconciliation of Structural and Functional Psychology. After a very clear statement of the methods of structural and functional psychology, whose relation was compared to that of histology and physiology in the natural sciences, President Calkins pro-

posed psychology-considered-a-science-of-the-related-self as a mediation by which the methods of both structural and functional psychology could be utilized and reconciled. The President's address was followed by a reception at the home of Prof. and Mrs. Münsterberg.

The morning session on Thursday was opened by two papers on the definition of feeling; the first by Mr. Henry Rutgers Marshall, the second by Prof. Norman Gardiner, of Smith College. These two papers summed up the various views of feeling and paved the way for a general discussion, in which Professors Angell, Duncan, G. Stanley Hall, Judd and Royce took part. The present ambiguities and difficulties of the word were fully discussed but no satisfactory substitute was suggested. Dr. Hall proposed to cut the Gordian knot by dispensing with a formulated definition until we had more knowledge on the subject, since, as he believed, we were just now in need of facts more than of a definition. As a working definition, the one proposed by Miss Washburn was perhaps the one which could be most generally accepted. Excluding pain and adopting unpleasantness as the opposite of pleasantness, she would define feeling as an unlocalizable and unanalyzed mental state. The discussion, while not furnishing any unified definition of feeling, brought out with great clearness the necessity of careful limitations in the use of a term so ambiguous.

The next two papers were on Attention—the first by Dr. Burnham, of Clark University, on Interest and Attention, in which interest and attention were regarded as identical and as intense states of consciousness, present as aspects of growth. The second paper, by Dr. Hylan, of Harvard, was a careful and detailed experimental study of attention and its limitations. The next paper, on the Psychology of Organic Movements, by Dr. I. Madison Bentley, of Cornell, was a plea for a more psychological study of organic movements, in distinction from the numerous biological and psycho-physical methods of most of the studies in this line. This was followed by Prof. Stratton's discussion of Modified Causation for Psychology (a modification of Maine de Biran's theory), after which the society adjourned to the hall of the philosophers to listen to the address of Prof. Wilhelm Ostwald, of Leipzig, on Psychical Energy. Prof. Ostwald's thesis was that as energy may be made to explain all physical phenomena, so likewise it may explain all psychic facts. Energy is found everywhere in the world; it is the most general property whose essence or test is work. Wherever work of any sort is accomplished, there we have energy. In eating, the chemical energy of food is transformed into psychic energy. When this store of energy has been used up more must be added in some way before work can go on. Prof. Ostwald thus regarded all psychology as reducible to energetics. This view would play havoc only with dualistic systems based on the old mechanical views of matter. In the discussion which followed Prof. Royce brought up the objection that physical energy, as we know it, is definitely measurable and he did not see how this concept could be applied to all the facts of mental life. Some activities were measurable but to others the principle of energetics seemed inapplicable. Prof. Ladd also asked some questions in regard to the specific application of the principle, and the session closed with a hearty expression of thanks by Dr. Hall to Prof. Ostwald for his suggestive and invigorating address, whose point of view he regarded as most helpful for modern psychology and irreconcilable only with the old-fashioned double housekeeping philosophy which he regarded as the resort of a mind not yet in order.

The afternoon session opened with a discussion (1) of the possibilities of co-operation between laboratories and departments of different

universities and (2) on Elementary Instruction in Psychology. The opening paper was read by Prof. Judd, who said that he regarded co-operation as regards courses of instruction impracticable since individual interests must largly determine the line of work. He suggested, however, that since the larger laboratories often manufactured some pieces of apparatus, it would be helpful if there was some centre where information in regard to the pieces manufactured by each laboratory could be obtained. It was also suggested that an interchange of the studies made in each laboratory would be a mutual advantage. Prof. Sanford then outlined a Beginner's Course in Psychology which the President aptly characterized as "invigorating heresy." Prof. Sanford said that in teaching psychology, two questions were possible, namely: how can the subject be presented in the best possible way to give an idea of the science itself, and how can it be presented to best fit the actual needs of the class in the relations of life? The second question was the one which Prof. Sanford had asked himself and his answer was the following course:

1. Psychology of Learning and Acquisition, including memory, habit, practice, acquirement of manual skill and dexterity, learning of language and complex mental operations.
2. Psychology of Truth and Error, including comprehension, belief, illusions, prejudices, superstitions, delusions, psychology of testimony, etc.
3. The Nature and Laws of Emotion, includiug the strong racial emotions, their genesis and hygiene and the psychological basis of Æsthetics and Ethics.
4. Psychology of Character and Personality, including types of character, criminal, pauper, mystic, philistine, psychology of leadership, etc.
5. Facts of the interdependence of mind and body: the permanent and alterable in human character, heredity and acquired character, hypnotism, mental disease and hygiene.
6. Psychogenesis: biological view of mind and its history in the animal series; human psychogenesis.
7. Systematic Psychology: a short review of the definitions and laws to be found in some small text-book.

At the close of Prof. Sanford's paper the subject was opened to general discussion. It was suggested that the course would take a lifetime for completion, but this would also be true of any good cause in psychology, which gives only an introduction to the subject. Miss Gamble, of Wellesley, brought up the fact that with large classes and limited library facilities there were practical difficulties in carrying out such a scheme.

The evening session was devoted to the address of the President of the Philosophical Association, Prof. Dewey, whose subject was Beliefs and Realities. Prof. Dewey's address was followed by a Smoker, while the ladies of the two associations were entertained at the home of Mrs. Royce.

The first paper of the Friday morning session was read by title, as the author, Mrs. Christine Ladd Franklin, was not present. Mrs. Franklin's subject was the Doctrine of Specific Energies. The remaining papers of the session were devoted to various phases of the psychology of vision, the first group of three papers, the Color Sense of Young Children, by W. S. Monroe; Primitive Color Names and Primary Colors, by J. W. Baird; and a Study of After Images on the Peripheral Retina, by Kate Gordon, dealing with problems in color vision. Prof. Monroe's paper was a report of tests made on young school children. The thesis of the second paper was that, from the

evidence derived from philology we can infer color sensitivity in primitive peoples. Prof. Gordon reported the results of an experimental study made with great care and accuracy in the Mt. Holyoke psychological laboratory.

The next paper, Visual Adaptation in Tachistoscopic Experimentation, by J. A. Bergström, was read by title. The remaining four papers: Photographic Studies of Convergence, by C. H. Judd; The Relation of Eye Movements to Judgments of Number, by Robert MacDougall; Vision during Dizziness, by E. B. Holt; and Vision and Localization during Eye Movements, by R. S. Woodworth, were grouped and included in one general discussion which was carried over to the beginning of the afternoon session. The main point about which the discussion centered was whether visual consciousness exists during rapid eye movements. Dr. Holt, from his experiments, inferred complete anæsthesia, but later was inclined to accept Dr. Dodge's term, inhibition, as covering the facts. Prof. Judd and Woodworth contended for visual consciousness during eye movements. The last paper of the morning session on the Possibility of Retinal Local Signs of the Third Dimension, by W. P. Montague, was read by title, as was also the first paper of the afternoon programme,—A Simple Method of Measuring Relationships, by E. L. Thorndike. Prof. Kirkpatrick's paper on the Growth of Vocabularies was a preliminary report on proposed means of measurement. Dr. Seashore, of Iowa University, then gave a description of the Voice Tonoscape, an instrument which he has perfected for the training of the finest voices and of which experimental tests appear to demonstrate the value. The next paper was by Frederick Lyman Wells on Linguistic Lapses, followed by a Comparison between the Speed of Imagined and Actual Rhythmic Muscular Movement, by Charles T. Bennett. This was an individual study and brought out the surprising fact that the imagined movement is slower than the actual movement, Dr. Hylan then gave a short demonstration of a new Kymograph, and the Association adjourned to the new laboratories where an informal conversazione of experimentalists was held.

Additional papers on the programme read by title were as follows: An Experimental Study in the Psychology of Voting, Colin A. Scott; Sex Differentiation in the Sense of Time, Robert MacDougall; Some Psychological Aspects of Success, Brother Chrysostom; Early American Psychology, I. Woodbridge Riley. THEODATE L. SMITH.

ERRATUM.—Vol. XVI, p. 537: the exposure of picture and odor lasted fifteen (not five) seconds.